ANNEX B

DRAFT

HEALTH WARNING MESSAGES:

An analysis of certain flaws in the proposed Canadian cigarette labeling regulations

A report prepared

by

M.J. Waterson

Allied Information Technologies Ltd
22-24 Bell Street, Henly-on-Thames,
Oxon RG9 2BG. Tel: 0491-574671

August 23, 1988

CONTENTS

DRAFT

HEALTH WARNINGS MESSAGES:

An analysis of certain flaws in the proposed Canada cigarette labeling regulations

PREFACE

This report was commissioned on Friday, 12th August 1988 and completed on Friday, 19th August 1988, as requested. International computer searches were used initially to try to locate relevant information, but given the vast literature available having some bearing on the subject, and given the extremely unusual subject matter, this approach was found severely limiting. As a consequence virtually all effort was switched at an early stage in the exercise to an analysis of material supplied by M.J. Waterson from his files and personal contacts, and from libraries and other literature and research sources in London, England.

Every effort has been made in the preparation of this report to ensure the accuracy of its contents. However, in view of the extreme time constraints under which the material was obtained, analysed and written up, Allied Information Technologies Ltd and its agents involved in research, writing and production of the report cannot accept any liability in respect of errors or omissions contained in the report.

It is now estimated that a full appraisal of this subject would require the services of one experienced researcher working full time on the project for at least six months.

Allied Information Technologies Ltd.,
22-24 Bell Street, Henley-on-Thames, Oxon RG9 2BG, England.
Tel: 0491 574671; Telex: 846424 PROSPX G;
Telecopier: 0491 579684

I. INTRODUCTION

Extensive literature searches were conducted using electronic database resources but these methods proved totally inadequate in finding material of such a specialised nature. It was thus necessary for Allied Information Technologies to conduct a manual search of the vast array of literature (medical, psychological, health education, market research, marketing, etc.) which covers the subject in question. In the time scale allowed (one week) it was obviously impossible to read the original source material for the hundreds of articles and books which were identified as having a possible bearing on the subject. Nevertheless, it is believed that a high proportion of the more useful works were identified and analysed. It is believed unlikely that the inclusion of more material would have greatly altered the conclusions of the report.

One key fact which emerged from the research is that it appears that health educationalists generally (not universally) now accept that simple warning messages of the "smoking kills" variety are probably far less effective than more sophisticated types of approach.

No specific information could be found on the possible impact of a large symbol warning device since it's use is unprecedented (we believe).

II. CONCLUSIONS

There is a fundamental difference between advertising messages devoted to getting customers to switch brands -- which individually in all probability play an insignificant role in the consumer's life -- and attempting to use such messages to alter fundamental behaviour patterns.

There is some direct evidence that cigarette pack warnings are ineffective in transmitting their messages, but it is fragmentary and far from conclusive.

There is a great deal of indirect evidence which suggests that pack warnings (and indeed many other kinds of "health information") do not achieve their presumed goals of reducing consumption by providing information concerning alleged health consequences. In relation to smoking behaviour the reasons are fairly obvious. First, virtually the entire populations of most advanced countries are already aware of the fundamental message of cigarette warning labels irrespective of the actual content of the label. Hence no formulation of the label is likely to materially add to the population's knowledge. Second, it is clear that the decision to smoke or not is influenced heavily by factors other than the belief that smoking may be unhealthy. Hence for two quite fundamental reasons the impact of warning labels will necessarily be limited.

There is evidence which can be used to suggest that pack warnings and other forms of health information are more ineffective than they need to be because they often appeal to

fear and other emotions that are dissonant with the beliefs of their target groups. Many intended recipients of warning messages simply shut out the message altogether to avoid the anxiety they create.

There is also evidence, albeit of an incomplete and fragmentary nature, which suggests that "fear appeals" such as large or strongly worded pack warnings may even be in danger of glamorising the products they set out to warn against, particularly among the young and more vulnerable sections of the population.

The overall conclusion from this research appraisal is that there is a large body of evidence available (which it would take many months to properly assess) which if properly researched would probably indicate that placing large warning notices on cigarette packs (particularly with a large symbol prominently displayed on each warning notice) is likely to be an ineffective method of achieving results desired by the health authorities, and at worst, may be directly counter productive.

At best the new symbols planned are unlikely to do more than the current designs to add to the consumer's knowledge or change behaviour patterns.

At worst the new symbols may be directly counter-productive to the authority's aims by increasing the dissonance caused to the consumer and even by glamorising the products they set out to warn against.

III. A NOTE ON HEALTH WARNING NOTICES AND OTHER FORMS OF ADVERTISING MATERIAL WITH "HEALTH EDUCATION" OBJECTIVES

There is a fundamental difference between the use of media (whether a cigarette pack or a television screen) for the purpose of proselytising messages aimed at changing human behaviour patterns and the use of media for selling consumer products. Health education messages usually constitute attempts to persuade often very large parts of the population not to do something they want to do, or to do something they have not thought of doing or previously been unable to do. The change in behaviour sought is dramatic, such as giving up smoking or changing sexual practices. Such ambitious aims contrast vividly with the much simpler (albeit still difficult to achieve) aims of ordinary commercial messages which are usually targeted at an objective such as getting shoppers to try a different brand of toothpaste.

This very considerable gulf between the objectives of ordinary commercial messages and those of health warning messages has been widely recognised by health educators, researchers and other interested in the subject. For example, Dr. David Player (writing as Chairman of the Scottish Health Education Group in Edinburgh, UK):

> ". . . objectives that are appropriate for commercial advertising may be quite inappropriate for health publicity.
>
> "The prime reason for this lies in the different 'products' being promoted in commercial v. health education advertising. Commercial products are regarded by many as trivial and

> superficial, not as central and ego-involving to the individual as ill-health. They are positive and attractive, and can be relatively easily obtained, often in addition to what is already done. By contrast, health publicity is largely negative: it preaches the avoidance of something negative (which is enjoyable), often involving short-term unpleasantness, for the sake of benefits that are long-term, probabilistic and not guaranteed.
>
> "This means that while behavioural change in the form of product purchase may be a legitimate objective (amongst many others) in commercial advertising, it is unrealistic as an objective in health publicity: it is patently unreasonable to expect the habits of a lifetime to be changed by a 45 second television commercial backed up by advertisements in the press, no matter how sophisticated or repetitive the campaign."
>
> And again:
>
> "It is argued that continuing to remind the public of information they know to be true but find unpleasant achieves very little, and may even be counterproductive, since it creates anxiety and with it defensiveness, rejecting the message being promoted. Instead, it is suggested that publicity should be more positive, promoting images, emotional values and atmosphere to reinforce currently developing trends."
>
> Source: Health Education and the Media, Pergamon Press, 1981.

The author of a recent book about advertising (in places highly critical of the industry) called The Want Makers put the same point even more forcibly in a recent article sub-headed "Why Ministers must break the habit of trying to solve a crisis with a slogan":

> "Surely, hard-headed commercial organisations would not spend millions of pounds on advertising if it was not an effective way of

getting their message across. Why should this not work for the Government?

"The reason is, ads for goods work because they set out to persuade people to do something they want to do anyway; ads work when they trigger desires that already exist.

"These Government ads, on the other hand, set out to dissuade. They try to persuade people to do things they don't want to do. Ads that work normally promise near instant gratification. These ask for sacrifices now in return for distant possible gain.

"Of course there are circumstances in which the Government should advertise, and does so successfully. But too often, as a recent report on the subject by the Social Affairs Unit points out, what their copywriters are really being asked to do is to make 'ambitious attempts at social engineering'.

"The Unit suggest that before embarking on campaigns, politicians should be able to answer satisfactorily and publicly a number of questions. These include: Have similar campaigns in the past worked? Will effects last? Will it reach those at risk? Is it education or propaganda? Is it for the benefit of those running it or for its audience?

"If such a system were put into operation there is little doubt the number of campaigns would drop dramatically. However, as the report's author Dr. Digby Anderson says: 'The politician derives benefits from the campaign as an achievement in itself, whether it works or not'.

"Not surprisingly therefore, politicians are unlikely to welcome such checks. Nevertheless we should demand them. Too often we allow them to get away with a massive and expensive charade. A charade we taxpayers have to pay for.

Source: Eric Clark, Daily Mail, 20.6.88.

This fundamental distinction between ordinary commercial messages and "health messages" should be borne in mind

as this report is read since it is fundamental to the arguments used in many of the areas under consideration.

IV. CIGARETTE PACK HEALTH WARNINGS: EVIDENCE ON EFFECTIVENESS

The literature relating to research into the effectiveness or otherwise of cigarette pack warning labels is not large. Much more work has been done on health education messages in general terms, attempting to evaluate the effects of a series of linked methods of getting consumers to stop smoking (such as pack warnings, increased prices, anti-smoking ads, etc). The general work is referred to in Section V of this report. What follows confirms the hypotheses discussed in Section III of this report.

> "Unlike product advertising offering immediate gratification, people are usually being asked not to behave in particular ways. This can be threatening, often creating anxiety and with it defensiveness. This means that it can be subject to problems of selective perception which are the mirror image of those normally operating in product advertising. There, the information is often attractive, and sought out to reinforce existing beliefs or to give emotional support: the health educationist's information, on the other hand, by being threatening, is more likely to be selectively avoided.
>
> "The classic example of this is the 'Ashes to ashes' poster that was developed in response to a brief which highlighted the need to remind people of the Government Health Warning (GHW). Well received within the advertising world, it attracted several awards, and was praised as an elegant symbolic representation of the link between smoking and ill-health, with the bottom line 'Why do you think every packet carries a Government Health Warning'

linking the symbolic material to the GHW itself.

"When the original version of the advertisement was pre-tested, however, smokers and non-smokers perceived it completely differently. Non-smokers saw it as intended, but smokers showed a quite marked perceptual defensiveness towards the entire advertisement, particularly to the bottom line. This they saw as the official warning itself, which, because they disliked what it said, they then claimed not to see. The advertisement was therefore seen as pictorial material without its copy-line. Viewed within the context, and at relatively quick exposure time to simulate typical viewing, it was open to all kinds of misperception; the symbolic tombstone, for example, was seen as a stick of rock, lipstick, even a telegraph pole; the background image was one of pleasant idyllic fields rather than a threatening graveyard. Nor was this a reaction to any oddity in this particular design: exactly the same reactions were obtained to other advertisements in the same series, which were all high fear-arousing ones.

"Apart from being an excellent illustration of selective perception in advertising, and how unpredictable and absurd consumer perceptions of seemingly obvious material can be, the case is a salutary lesson on the dangers of professional opinions being projected on to others. Most anti-smoking campaigns are designed and conceptualised by non-smokers, but fail to empathise with the experience, attitudes and perceptions of those for whom they are intended.

"This inability of the designers of health publicity to identify with their audience often extends into other areas, especially any demanding an understanding of the target audience's life-style and social environment. No matter what they may argue, those concerned with developing health publicity almost invariably have middle class opinions, and have great difficulty in empathising with life-styles that differ from their own. In particular, publicity designed for working

class audiences often implicitly reflects professional middle class attitudes and values.

"While this can be a problem in product advertising as well, it is particularly acute in health advertising. The reason for this is that health advertising is seen to emanate from the Government, or from an official body. It is the Establishment talking, promoting an official middle class attitude, telling people what they should and should not do."

Source: Developing Socially Sensitive Advertising; Player and Leathar in Health Education and the Media, Pergamon Press 1981. (Emphasis supplied.)

Another reference to warnings which unfortunately has not yet been found to be research-based:

"Government warnings to smokers that they are damaging their health do not make them give up, Professor Hillary Graham, Professor of Social Policy at the University of Warwick, says.

"Many people smoke cigarettes, and eat the wrong things, to cope with stress, and simply telling them it is bad for their health will not make them stop, she says."

Source: The Times, 25.1.88.

Another reference to the same statement:

"Shortly after Mrs. Currie's announcement, Professor Hilary Graham of Warwick University was reported as finding that government health warnings on cigarette packets, one of the largest and the most costly of the anti-smoking campaigns (instigated by the government at other's expense), do not make people give up smoking. Many people smoke cigarettes, and eat the wrong things, to cope with stress, and simply telling them it is bad for their health will not make them stop, she says."

Source: "The Megaphone Solution", Digby Anderson, The Social Affairs Unit, London 1988.

Note: Efforts to obtain Professor Hilary Graham's original statement or research work have so far yielded no results.

V. INDIRECT INDICATIONS THAT PACK WARNINGS ARE UNLIKELY TO AFFECT BEHAVIOUR PATTERNS

The paucity of material directly relating to pack warnings is largely a result of the difficulty of separating out the impact of the warning itself from the plethora of other anti-smoking activities which often have accompanied the introduction of pack warnings. However, some indication of the potential impact of such warnings can be gauged from looking at the results of attempts to gauge the effectiveness of entire anti-smoking campaigns. If an entire campaign including perhaps price increases directed at smokers, main media advertising campaigns, and pack warnings have in total been ineffective, it is unlikely that the pack warning alone would have had much impact.

Here the evidence is rather more ample both in the cigarette field and in other related areas. For example, there have been several attempts at contrasting smoking behaviour among young people in those countries where advertising bans, pack warnings and other attempts at cutting smoking have taken place, with countries where fewer restrictions apply. For example:

> "This comparative study found, in the face of the varying national patterns regarding the control of tobacco advertising, that it was not possible to predict which country would have the lowest incidence of juvenile smoking.

Conversely, juvenile smoking incidence statistics would not help predict which country has the strongest restrictions on tobacco advertising. Clearly, factors other than tobacco advertising and its regulatory control must have played a key role in juvenile smoking initiation and incidence.

"The research revealed key factors such as the circumstances in which children begin to experiment with smoking; the role played by the smoking behaviour of parents, brothers, sisters and peers; the challenge of daredevilry, together with socio-cultural factors.

"The data patterns which have emerged are remarkably similar on a country-by-country basis, and they show that a combination of personal, family and social factors are the predominant reasons accounting for smoking initiation by juveniles. Such data patterns persist despite the presence or absence of tobacco advertising. Advertising was also found to be an insignificant factor with respect to the list of reasons advanced by juvenile respondents for starting to smoke.

"In all cases, it is apparent that tobacco advertising does not significantly influence the smoking initiation process as far as children and young people are concerned. Instead, the decision to start smoking involves mostly a combination of personal, family and social factors.

"To summarise, the smoking initiation process and the role of advertising have been internationally examined within and between countries with different approaches to tobacco-advertising controls. Advertising has been consistently found to be irrelevant not only to the smoking initiation process by juveniles, but also regarding juvenile smoking incidence."

Source: Why Do Juveniles Start Smoking: an international study of the role of advertising and other contributory factors in Argentina, Australia, Canada, Hong Kong, Norway, Spain, Sweden, Switzerland, Turkey and the U.K. Edited by Professor J.J. Boddewyn, Baruch College, New York; published by the IAA, 1987.

Similar results were found by a WHO-sponsored survey:

> "The lack of clear differences in smoking habits between countries probably reflects the selection of countries involved in the study in 1983-84. However, since Norway and Finland are countries with a restrictive legislation on advertising of tobacco products, and the other two countries are not, a difference might have been expected. No such systematic differences are found. Obviously, comparisons of trends over time represent a more solid empirical basis for further elaboration of this phenomenon."
>
> Source: Health Behaviour in Schoolchildren, a WHO cross-national survey: a presentation of philosophy, methods and selected results of the first survey; Aaro, L.E., Bente, W., Kannas, L. and Rimpela, M. Published in Health Promotion (May 1986) Vol.1, No.1, pp.17-33.

Other more conventional sources of similar conclusions in the tobacco area include:

> "The hypothesis that the decrease of smoking among children is directly influenced by anti-smoking information, is not supported by research findings. Since the end of the seventies several surveys show little or no effect of the usual anti-smoking information upon smoking behaviour of children (Aaro, 1981; Van der Rijt, 1979; O'Connell et al., 1981; Murray et al., 1984).
>
> Source: Anti-Smoking Information and Changes of Smoking Behaviour in the Netherlands, UK, USA, Canada and Australia, J. van Reek and H. Adriannse.
>
> Sources quoted in the quote:
>
> - Aaro, L.E., (1981), proceedings Conferenza Internazionale Tabacco e Giovani, Venezia 437-455.
> - Murray, M., A.V. Swan and G. Clarke (1984), J. Epidemiol. Comm. Health 38, 247-252.
> - O'Connell, D.L., H.M. Alexander, A.J. Dobson, et al. (1981), Int. J. Epidemiol, 10, 223-231.

- Rijt, G.A.J. van der (1979), Jeugd en anti-rookinformatie, Dissertaion, Nijmegen.

(Requests for the original information have been made.)

Other references point to the gap usually found between getting health messages (via information programs which usually include pack warnings) and achieving changes in behaviour:

> "It is a remarkable fact, and one to which Mr. Bynner alludes early in this finely detailed monograph, that whereas there has been considerable success in persuading school-children of the causal connection between smoking and cancer of the lung, there has been remarkably little downward influence on their smoking habits. The problem to which the Social Survey was addressed by the Ministry of Health (as it then was) is the improvement of the effectiveness of the anti-smoking campaign with particular reference to school children, by investigating the motives of smoking by children of school age."
>
> Source: Reference derives from a book review of The Young Smoker, J.M. Bynner, Government Social Survey Report SS383, London: HMSO (1969), which appeared in the Journal of the Market Research Society Vol.12, No.4.

And a similar American reference concludes:

> "It is possible that prevention programs directed at children and adolescents have generally placed too much confidence in merely communicating knowledge about the dangers of smoking. Developers of these programs may assume that such fear arousal will in itself be sufficient to thwart smoking. In fact, as will be amplified later in this chapter, by the time children reach junior high school, almost all of them believe smoking is dangerous. It appears that communications concerning the dangers of smoking whether delivered from schools, churches, voluntary agencies, mass media, the family, peers, governmental agencies,

> industrial organizations, consumer organizations, or labor unions (individually or collectively) have indeed, been effective in persuading children and adolescents that smoking is dangerous. However, it is also evident that fear of the consequences of smoking may in itself not be sufficient to discourage a substantial number of children from beginning to smoke when they approach adolescence."
>
> Source: Extract from the US Surgeon General's Report 1979.

There is also a great deal of material from areas related to smoking. For example, Marcus Grant, one of the best known experts in the world on alcohol problems, in a paper in Zagreb stated that in a review of over 150 alcohol education impact studies:

> "Increases in knowledge appear relatively easy to achieve, but measurable changes in attitudes to alcohol or more particularly, in actual drinking behaviour are comparatively rare."
>
> Source: Grant, M., Alcohol Education Centre, World Health Organisation, Zagreb, 1983.

The same large study has also been quoted in a slightly different context:

> "There is little reason to suppose education is likely in itself to have more than a marginal influence over alcohol-related mortality and morbidity. In a review of approximately 150 alcohol education impact studies, one of the authors of this book (Grant, 1982c) has found that virtually all those programs which tested for increased knowledge found that measurable improvements had indeed occurred. By contrast, those which tested for changes in attitudes, behavioural intentions or current behaviour displays far more ambiguous results."
>
> Source: Grant, M., Ritson, B., Alcohol: The Prevention Debate; Croom Helm 1983.

An example of the inefficiency of one such educational campaign was provided recently in the UK by a Government decision to abandon a long-running campaign designed to cut drunk driving on which close to 20 million dollars had been spent:

> "The government is scrapping its annual "don't drink and drive" campaigns after a report revealed that the £10m programme has failed to produce measurable results. The money will instead be spent on research to reduce road accidents."
>
> "Experts in the Department of Transport, who produced the report, say that there is no proven link between the campaigns and the saving of lives. They believe that the catchy slogans have failed to deter hardened drunk-drive offenders and that the money would be better spent on studying vehicle safety, driver behaviour and traffic control.
>
> "The campaigns have been running for a decade and have become a national institution with slogans such as "Think before you drink before you drive", "If you drink and drive you're a menace to society", and "Stay low".

The report recommends that the government should as quickly and as far as practical and political constraints allow, withdraw from its programme of paid advertising, a phrase which refers to its anti-drunk-driving campaign, because the advertisements are 'not demonstrably cost-effective in casualty reduction'.

> "Some officials fear that the government advertising may even have created complacency among road users. Dr. John Harvard, secretary of the British Medical Association, said 'Telling people not to drink and drive doesn't work; it's a waste of money'."
>
> Source: Sunday Times 23/8/87.

Another example from the drink area:

> "The United States National Academy of Sciences panel on alternative policies affecting the prevention of alcohol abuse and alcoholism also reviewed the effectiveness of educational strategies. The commissioned paper on this topic reached the conclusion that:
>
> 'Although it may be true that previous education campaigns focussed on various aspects of alcohol abuse have had minimal, if any effect . . . their apparent failures were due, not to the lack of viability of the approach, but to insufficient attention to some of the principles of mass persuasion and social learning theory that have been applied with some degree of success in related areas'."
>
> Quoted in 'Alcohol Policies', a WHO publication, series No.18, 1985. US NAS panel review in "Moore, M.H. & Qurstein, D.R., ed. Alcohol and Public Policy: beyond the shadow of prohibition. Washington D.C., National Academy Press, 1981.

A sample of other examples of the considerable literature available in this area:

> "The general lack of any evidence of a campaign effect among the sample as a whole was underlined by the analysis of responses to a series of 15 different attitude statements on which respondents were asked to indicate their degree of agreement using a four point scale. No effects of any kind were observed in the data between pre and post surveys among either the total sample or the 10-24 year old group."
>
> Quoted from ESOMAR Conference papers 1978 "The Evaluation of the Drink and Drive Advertising Campaign 1976/77".

Another example:

> "There is little sign that glue sniffers are influenced by extensive campaigns designed to put them off."
>
> Source: The Guardian 18/8/86.

Another example:

> "However, as Pearson et al. have illustrated in their study of people actually moving in the orbit of heroin users, most of those who are recruited are introduced to the drug by a friend and are fully aware of the realities of addiction through personal experience. It is thus unlikely that an advertising campaign will modify their attitudes, even if they find the message credible, and there is also some doubt about that."

> "Most drug educators now accept that actual initiation into drug use is determined not so much by knowledge, beliefs or attitudes.

VI. REASONS WHY PACK WARNINGS (AND MANY OTHER HEALTH EDUCATION MESSAGES) ARE INHERENTLY INEFFECTIVE

There are two fundamental reasons why pack warnings and similar educational devices are likely to be ineffective. First, from a very early age most children have been led to understand very clearly the messages on such warnings. Hence, since the knowledge the pack warnings are trying to communicate is already well known by over 95% of most (developed country) populations it adds little or nothing to the knowledge already present. For example:

> "In health education, the past decade has seen mass-media publicity used steadily to promote factual warnings about the health risks associated with smoking and the excessive consumption of alcohol. We have now reached the stage in Scotland where the educational objective has largely been achieved, particularly in smoking and alcoholism, and to continue to promote this heavily negative theme in the next decade is likely to be of more limited value, because of the defensiveness it induces."

Source: D.S. Leathar, University of Strathclyde, UK. Article: "Defense inducing advertising", ESOMAR Conference Paper 1980.

Again:

". . . campaigns have been logical, factual and rational, pointing out the health hazards associated with, in particular, smoking and excessive drinking.

"The current problem with this approach is simply that, while it is without question a perfectly legitimate objective, it has now been achieved. 96% of the Scottish adult population are aware, to at least some extent, of the health risks of smoking. And the evidence is that having achieved this, large sectors of the population . . . are choosing not to behave in the health educationist's desired manner. This, in turn, has led some health educationists to criticise the use of mass-media publicity, especially in view of the extensive resources allocated to it. Such expenditure, it is argued, is unjustified, since there is little evidence that it induces the required behavioural change. And certainly, most evaluation of health education campaigns backs up this assertion; pre-post measures on major variables such as attitude or value change, for example, are often not significantly different, and virtually never so on measures of behavioural change."

Source: Player and Leathar, Developing Socially Sensitive Advertising; Health Education and the Media, Pergamon, 1981.

The second reason is connected with the well known (to advertisers) fact that customers (whether of products or health messages) tend to shut out messages that they don't want to see or hear, or that they perceive as irrelevant, or that they find frightening.

One classic article on this subject discusses the great distortions with which smokers (as opposed to non-smokers)

perceived a health warning placed on an advertisement specifically designed to reinforce the Government Health Warning printed on cigarette packs in the UK. The author noted:

> "The advert thus essentially illustrated two defensive phenomena one can encounter in health education publicity: firstly, the threatening nature of the campaign can lead to its being psychologically misperceived; and secondly, even if one overcomes this stage and ensures that it is perceived as intended, it is ineffective to merely induce anxiety without providing the appropriate means of resolving it, otherwise a second defensive reaction will take place - most commonly, the message will be quickly rationalised and then dismissed."
>
> Source: D.S. Leathar, ESOMAR Conference Paper, 1980.

The literature on the difficulties of getting across messages that arouse anxiety or fear in potential audiences is quite considerable. Some examples follow:

> "Fear is an extremely potent human emotion. It is easily abused, over-used and often counter-productive. What looks full of impact, drama and lures awards like a dog picks up fleas, may be totally ineffective - or worse, harmful. Use fear in advertising and you use it at your peril."
>
> Quoted from an article by Mark Jezewski of Wasey Campbell Ewald, Ad Age Focus, January 1982.
>
> Again:
>
> "Some investigators examining the issue of why fear arousal may often have such a limited effect on health behavior suggest that much of the information communicated to children concerning smoking and its dangers may be too general and not sufficiently personalized. Also the suggested harmful effects of smoking in many smoking control messages violate the concept of 'time perspective.' As children

grow older they recognize that people around them who smoke do not die instantly and that heart attacks or cancer are not a certainty. They may need to be exposed to evidence that smoking has immediate physiological effects on the body. Younger adolescents particularly live in the present and are not preoccupied with the future. Emphasizing what might happen to them when they are much older may not be an effective way to persuade many of them to resist the pressures to begin smoking.

"Becoming a smoker may have the immediate value to some teenagers of being accepted by their peers, feeling more mature because smoking is an adult behavior forbidden to the child, providing a level of physiological stimulation and pleasure, and might even serve the function of an act of defiance to authority figures. The prevention programs reviewed rarely incorporate such concepts. Rather, they focus primarily on information relating to the long-term dangers of smoking."

Source: US Surgeon General's Report, 1979.

Again:

"Empirical support for the relationship of fear to persuasion generally has been sparse." (I.e., little support exists for supposing that fear is a good persuader.)

Source: Barbara Stern, Roots of Advertising Strategy for the Mass Market, Journal of Marketing, July 1988.

Again:

"People concerned with the manner of presentation of safety propaganda, have almost invariably discussed the merits of using scare, shock or fear arousing techniques. Frequently, reference is made to early laboratory studies at Yale University, conducted by Janis and Feshbach (1953) and others. They interpreted their results as to indicate that a greater change in behaviour is produced by a minimal fear appeal and that strong anxiety appeals lead to defensive avoidance. Defensive avoidance on the part of the viewer was

believed to block out the message from his awareness and to reduce subsequent recall."

Source: Road Safety Campaign: design and evaluation; Report by an OECD road research group.

Again:

"It is of course already the case that health educators seek to change people's perception of the meanings and consequences of alcohol use - but their intention has generally been limited to the creation or strengthening of negative stereotypes of the heavy user . . . there is (we think) little genuine hope amongst experience health educators that this primitive approach (leaning heavily upon scare tactics and fear of disapproval) will suddenly begin 'working' when it has not before."

Source: Dorn, N. and South, N., Message in a Bottle, Gower Publishing Company, 1983.

Although the research is far from conclusive in this difficult area there is wide agreement among health educationalist that straightforward fear appeals (and a pack warning carrying some large harsh message must fall into this category) are likely to be ineffective.

More effective have been positive messages. For example:

"Drake maintains that the most effective anti-smoking advertising was not that which went on about cancer but another 'offensive' campaign that played on the social stigma of smoking 'Your breath smells like an old ashtray.'"

Again:

"The desire was not to make people feel guilty or dramatise the hazards of tobacco. Indeed, the main emphasis of the programme was placed on presenting the positive aspects of not smoking. Hence the slogan chosen for the

programme: 'I'd rather be healthy, so I don't smoke'", is a pure, positive, health promotion message.

Source: The rise of communication media in a programme against smoking; Vague and Salleras.

VII. THE POTENTIAL FOR BOOMERANG EFFECTS FROM FEAR APPEALS

It has long been recognised (O'Keefe 1971; The Anti-smoking Commercials; Public Opinion Quarterly; quoted in "Advertising and Cigarette Smoking, Reinhold Bergler, published by Hans Huber, Bern, 1981) that health messages conflict with beliefs or desired beliefs conflict can occur:

> "When behaviour and attitude are in conflict, people will tend to maximize the perceived benefits derived from the discrepant behaviour to justify their actions (this can even lead to further reinforcement of their previous behaviour - the so-called 'boomerang effect')".

Another quote from the managing director of an advertising agency in London:

> "Similarly the original news of the Royal College of Surgeon's report on smoking and health created an initial drastic reassessment of behaviour by many smokers. Subsequently publicity of the same facts, however, has failed to generate similar change.
>
> "The school classroom also provides an opportunity for education about any abuse. But this vital area has the problem that pupils will not pay attention to a figure of authority warning them off drugs. The risk is an increase in the curiosity factor among the very age-group that is getting involved in illegal drugs.
>
> "Facts and education alone are probably not enough to change youngsters' attitudes."
>
> Quoted in Media Week 7.6.85.

Recently experimental evidence of the effect has emerged from a Policy Studies Institute study of illicit drug use (the project was funded by various Health Authorities, Police Authorities and a Health Education Unit. The following quotes are taken from the report "Illicit Drug Use in Portsmouth and Havant; a local study of a national problem"; Brown & Lawton, published by the Policy Studies Institute, 1988:

> "The real differences were over the answers to the question on 'risks': drinkers and smokers were more likely than others to say they would do the things listed in the question, and the relationship was even stronger for those with experience of drugs. What are we to make of this strong relationship between the 'risks' question and the consumption of legal and illegal drugs?"
>
> "We can speculate about what may lie at the psychological base of the pupils' responses. As a first step, we can identify five dimensions that these questions might be tapping. They are: a fondness for physical danger; a general wish to show courage or daring; a genuine lack of appreciation of risks; a rebellion against authority; and a longing for adulthood. A full analysis would probably come up with more underlying reasons for answering 'yes' to the risk questions, but the present examples are enough to make two points. First, the five dimensions are not just aspects of a general 'risk-oriented' disposition: they represent five distinct candidates for explaining the 'yes' answers to the questions. Secondly, we cannot tell from our data which of them was really at the base of our drug-user's high scores. There are some indications that rebellion was more important than a fondness for danger (the lack of any relationship between drug use and the dangerous sports item, for example), but a proper investigation of this would require a much more extensive battery of questionnaire

items and a thorough analysis using multivariate tools such as factor analysis.

"Whatever psychological factors lie at the root of the drug users' high scores on the risks question, the implications for health education in this field are clear. School pupils will not be put off tobacco, alcohol or illicit drugs by horror stories or by simple admonishment. If anything, an approach that emphsises danger and illegality will only encourage those already likely to be interested in smoking, drinking and taking drugs."

M.J. Waterson